

# ***A PENNSYLVANIA GREEN TAGS PROGRAM***

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# *Introduction*

- Community Energy markets clean energy to customers in competitive electric markets
- Based on successful CO program, CEI launched a pilot wind energy effort in PA
- CEI marketed new wind energy to customers that took service from CEI partner supplier Conectiv.

# *Introduction*

- Pilot Results
  - 60 signed customer contracts
  - Customers realized 10-15% bill savings
  - On average, they used about half the bill savings to buy 30% of their total electricity from wind energy.
  - Extensive media generated from a small pilot.
  - **Pilot led to the first wind turbines in PA, by Hazelton in the Poconos!**

## *New Product*

- New wind energy from Northeast PA site
- One of the largest sites in eastern US
- Excellent time-of-day, seasonal output
- Located close to major load centers
- High quality Class IV wind resource
- Wind supply available for pre-marketing in 6-8 weeks.

# *New Product*

- **Blocks of New Wind!**
  - Flexible product, customers can choose the exact amount of the wind purchase
  - Retail premium will be between 2.5-3.0 c/kWh
  - All customer premium dollars go directly to the wind purchase, not a blended product
  - **Wind premium linked directly to new turbines constructed at a northeast PA site**

# ***Market Breakdown***

- **What are the problems?**
  - Pilot effort in 1999 switched customers to a new supplier and realized 10-15% bill savings.
  - Market in 2000: wholesale prices have risen due to higher gas prices and capacity shortages
  - There is no incentive in most cases, and perhaps even a substantial penalty, to switch customers to alternative suppliers.

# *Market Breakdown*

- What are the problems?
  - We have a willing seller of wind energy supply
  - We have a willing customer interested in buying wind energy at the premium
  - We can't switch them to a new supplier
  - The incumbent may not be willing or interested in supplying wind.
  - **Market can't link demand and supply**

# *Market Breakdown*

- What are the problems?
  - Aggregating customers with diverse load profiles can be difficult from an electric bill perspective.
  - Example: Effort to aggregate Federal facility loads in Denver, CO.
  - Individual facilities have different energy and demand charges and usage patterns.
  - Allocating aggregated purchase has real transaction costs.



# *Certificate Solution*

- Green Certificates
  - Allow for a direct transaction between the wind supplier and the customer
  - Bypass the retail supplier and avoid the need to switch suppliers.
  - Provide a method for linking wind supply from a specific site to a customer.
  - Low transaction costs as demand and energy rates and usage patterns are less important.

# *The Market*

- Potential Customers for PA Green Certificates/  
Green Tags
  - Municipalities
  - Federal Facilities
  - State Government/Agencies
  - Non-Profit Institutions (e.g., Hospitals,  
Universities, etc.)
  - Large corporations

## *Concerns*

- Wind purchase is not on the electric bill.
- As a result, customers may not perceive wind purchase as part of electric supply
- Substantial educational costs may exist to explain tags or certificates to customers
- The media may be confused or reluctant to cover certificate purchases
- Certificates may reduce credibility of the green market, by not being part of electric supply.

## *Possible Lessons*

- Green Tags/Certificates must link specific wind sites to individual customer purchases; generic purchases are not likely to work.
- Green tags are most likely to work within same control area, where power is actually pooled
- Green tags are most likely to work where the wind supply and the air shed and the control area are geographically proximate.
- Green tags most likely to work for large customers where they can be cost-effectively educated.